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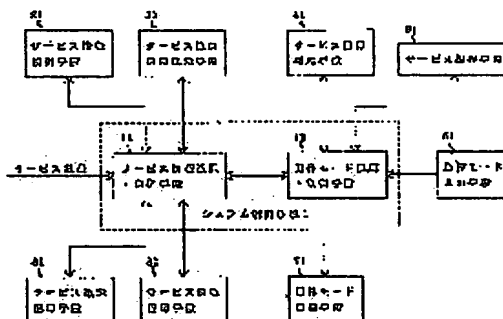
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## (54) INTERACTIVE SERVICE SYSTEM

## (57)Abstract:

PROBLEM TO BE SOLVED: To provide an interactive service system provided with a function retrieving by service summary information included in service information and automatically judging a countermeasure to a service by service corresponding time information (the acceptance or prohibition of offer, or the retrieval of service information) in particular.

SOLUTION: All service broadcasts or only service information is detected and recorded in a service broadcast recording means 31 or a service information recording means 32. At the time of recording only service information, a service information detection means 21 detects service information to detect. On the other hand, period information is extracted from service information and recorded in a service retrieval information recording means 33. A service information judging means 42 compares extracted period information and the present date with each other to judge whether the date is in a service period or not. Based on this, a service operation means 51 prohibits or permits the offer of a service.



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CLAIMS

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[Claim(s)]

[Claim 1] The transmitting means for carrying out multiplex [ of the service information ] and transmitting to an user, and the receiving means for receiving the video signal from the aforementioned transmitting means, and getting over, The means for recording and reproducing only the video signal or the service information by which multiplex was carried out to which it restored with the aforementioned receiving means, The control means for performing automatically operation which accompanies offer or this of the service information which extracts the reference information for searching a service information from a service information, and is equipped with this with the means for recording and reproducing, and an user demands, The interactive service system characterized by \*\*\*\*\*ing.

[Claim 2] A control means is an in taxi \*\*\*\*\* service according to claim 1 characterized by providing the means for extracting the information containing a service term from a service information, and performing the comparison with a service term and the present time from this information, and the means for telling that it is an end or end nearness of a service term from the aforementioned means.

[Claim 3] A control means is an interactive service system according to claim 1 characterized by to provide the means for extracting the information containing a service term from a service information, supplying an actuating signal to the means for performing the comparison with a service term and the present time from this information, and a means perform record and regeneration when the aforementioned means detects an end of a service term, and eliminating the recorded service information.

[Claim 4] A control means is an interactive service system according to claim 1 characterized by providing the means for emitting an alarm while it performs offer prohibition of a service information from the comparison result of the means for performing offer authorization of a service information from the comparison result of the aforementioned comparison means in being less than a term, and the aforementioned comparison means, in being outside a service term.

[Claim 5] A control means is an interactive service system according to claim 1 characterized by providing the means for newly determining the priority of reference with progress of a service term.

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**DETAILED DESCRIPTION**

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[Detailed Description of the Invention]

[0001]

[The technical field to which invention belongs] this invention transmits a service information to the addressee (user) which becomes by the common televiewer or the subscriber from a broadcasting station, and when an user receives this, if possible, it relates to the interactive service system which closes receiving a service.

[0002]

[Description of the Prior Art] The broadcast which added the conventional service information was a one-sided service provision from an addresser (broadcasting station) to an addressee (user). Therefore, when the service needed a feedback to an addresser from an addressee, the addressee had to judge the content and had to cope with it. It is \*\*\*\*\* if it does not judge whether it is the service correspondence term especially when only the broadcast which added the service information, or a service information is recorded and it receives a service in addition to the time of a broadcast reception.

[0003]

[Problem(s) to be Solved by the Invention] That is, the user had to make various operations and decisions from the service information with which the target was provided on the other hand, and it had become very bad [ usage ] with the system for the side which receives a service.

[0004] Then, this invention searches using the service schema information included in a service information in view of such a problem, and aims at offering the interactive service system equipped with the functions (authorization of offer of a service information, prohibition, or reference) in which the correspondence to a service can be automatically judged especially by the service correspondence hour entry.

[0005]

[Means for Solving the Problem] Even if an interactive service system according to claim 1 is except broadcasting hours, it enables it to receive a service among this inventions by reproducing the service information recorded [ was extracted and ] and recorded [ information / service / storage or a picture information to ] in all picture informations.

[0006] The transmitting means for carrying out multiplex [ of the service information ] and transmitting, and the receiving means for receiving the video signal from the aforementioned transmitting means, and getting over, The means for memorizing only the video signal or the service information by which multiplex was carried out to which it restored with the aforementioned receiving means, and reproducing, The reference information for searching a service information is extracted from a service information, and it has a means for memorizing this and reproducing, and is characterized by providing the control means for performing automatically operation which accompanies offer or this of the service information which an user demands.

[0007] It is the interactive service system according to claim 2 to 5 which showed concretely the fraction which operates automatically acceptance of the service information which is the characteristic feature of this invention or prohibition, reference, etc. from a configuration according to claim 1.

[0008] In a claim 2, a service term is extracted from the term informations (recording information which recorded all picture informations, recording information which recorded only the service information)

included in the service information, and a comparison means [ this / the data of the clock section in TV or VTR ] is established. Therefore, an end of a service term or the number of \*\* days is detectable. This detection result can be displayed from a display in a loudspeaker to an output or a character with voice, and it can tell an user that they are the expiration of a service term, or the end nearness of a service term.

[0009] In a claim 3, the appearance and the above-mentioned alarm whose user does not receive the service accidentally with an end of a service term are emitted, and also the memorized information is made eliminable from the Records Department. Moreover, the storage section for receiving a new service can be secured, and the capacity of the storage section used can also be reduced.

[0010] or [ eliminating it using an erase head etc., if this fraction is VTR ] -- or it is realizable by overwriting. Moreover, if it is the storage section which consists of a semiconductor device, \*\* is easily realizable with the configuration of overwriting by the read/write controller. This operating command depends on a judgment information from a comparison means.

[0011] Furthermore, while it tells that it is before the appearance in which an user does not receive a service accidentally other than an alarm, and a service term, during a service term, or in a service term, when it is except a term, it is invention according to claim 4 which established the means for forbidding offer of a service entirely.

[0012] When it becomes clear that it is within a service term from the judgment result from a comparison means, an acceptance of a service supplies an enabling signal to storage or a regeneration means so that reference of a service information or regeneration of a service information can be performed, and, in the case of others, forbids storage, regeneration, reference, etc. When it is before a term or in a term, even if prohibition forbids a regeneration operation of for example, the storage section, for example, it is going to reproduce by the command from a control unit, no operating command is supplied to the storage section. Moreover, a logic gate is prepared in the path which supplies the operation signal from a control unit to a control means, and there is also a configuration which forbids.

[0013] Furthermore, it is invention according to claim 5 which established a means by which the priority of reference could be determined, according to the judgment result of a comparison means. When storage or a deletion of a new service etc. is performed, it improves so that the priority of reference can be updated.

[0014] Here, about reference, it memorizes for a reference information storage means, using a reference information, for example, a title etc., as a keyword, and there is a configuration which searches by displaying this from a display etc. Therefore, a title etc. can be searched by directing an input or a display menu (the data from a reference information storage means being displayed) with cursor from a control unit. The opening day or end day of a service term is added to these reference informations (title etc.), and reference precedence can be changed into them by comparing an opening day or the end section with the aforementioned comparison means. Furthermore, when a reference information is memorized to auxiliary memory etc., a title is searched with main storage (for example, VTR) from this information, and a service information can be searched with the configuration of reproducing the storage information after this title. With VTR, a track is traced, for example with a head, and when a predetermined keyword (for example, title) is detected, it can realize easily with a configuration which a servo inverts and reproduces from the head. About the thing [ run short ] of a service term, it is made for reference precedence to be a high order based on the judgment result from a comparison means. Therefore, it can display now from the thing [ run short ] of a service term.

[0015]

[Embodiments of the Invention] Hereafter, the gestalt of implementation of invention is explained with reference to a drawing. Drawing 1 is a block diagram showing the gestalt of operation of this invention. Although shown in drawing 1, the system-control means 1, the service information judging means 41, and the service operation means 51 consist of a microprocessor etc. inside. Moreover, in the service broadcast record means 31 and the service information record means 32, VTR and the service reference information record means 33 consist of a semiconductor recording device etc. Although the storage section and the regeneration section of VTR consist of RF modulation section for changing into the modulation section for record, the recovery section for regeneration, and a broadcast signal and a head control section, the tape conveyance section, etc., this fraction shall be contained in service

information selection / control means here. Moreover, the tuner section (VBI containing VBI decoder etc. is a vertical-retrace-line term) which a receive section also has in TV receiving set or VTR shall be used, and this shall also be contained in service information selection / control means 11.

[0016] A service information is supplied to service information selection / control means 11. With service information selection / control means 11, a service information is detected from a service information broadcast, and the information is memorized, or all of video signals are memorized. Here, according to the designation from the operation mode input means 61, it is made to record the service broadcast. In addition, a configuration which memorizes the information only on the keyword which these people always operate a receive section on seven to Japanese-Patent-Application-No. 213716 specifications, and has presented the configuration which can record a broadcast signal (here service information), and is related on these specifications is also shown. Thus, a detection means detects only a service information, and the capacity of memory is reducible if it places as it memorizes.

[0017] Furthermore, with service information selection / control means 11, the reference information for searching a service information is extracted from a service information, and it records on the service reference information record means 33. In addition, a configuration which restores to the service information transmitted according to the data format decided beforehand in a receive section is sufficient as the fraction which extracts the fraction or the reference information that only a service information is detected.

[0018] On the other hand, authorization or prohibition of offer of a service etc. is set up with operation mode setup / control means 12. This is performed by judging a service term from a service information with the service information judging means 41. The comparator (not shown) is prepared in the service information judging means 41, and the comparison with the term information included in data and service informations, such as TV receiving set or VTR, from the clock section is carried out to it. It is made to operate authorization, prohibition, or reference with the service operation means 51 from this comparison result. Moreover, an alarm is emitted from the operation mode alarm means 71, and it enables it to have checked the service term to the user.

[0019] Moreover, a setup in the reference mode in the case of searching is also performed here. For example, the change designation to the reference mode is performed from a control unit, and the reference information is displayed from the display (not shown) based on this designation. The reference information which consists of a title etc. is memorized for the service reference information record means 33, and this is displayed on it from the display (not shown). Furthermore according to the cursor designation from the operation mode input means 61, or the input of a reference information, operation mode setup / control means 12 is performing regeneration designation of a service information to service information selection and the control means 11. It enables it to have outputted the message in front of a term or in a term, and after a term etc. based on the judgment result of the further above-mentioned service information judging means 41.

[0020] In being before a term, it supplies the signal of regeneration prohibition to the appearance and the service information selection-control means 11 by which a service is not offered with a message. Moreover, a logic gate is prepared in the path which transmits the operation signal from an operation means to operation mode setup / control means 12, and if it is prohibition, you may prevent from transmitting the signal from an operation mode input means to operation mode setup / control means 12.

[0021] Moreover, such a prohibition command is supplied to each means, and also further, clear command is taken out to service information selection / control means 11, and it is made to eliminate the recorded service information. At this time, as remaining as it is, a service information enables it to check an old service information, and can also eliminate only the recording information of the service reference information record means 33.

[0022] By making it the above configurations, during a service term can provide an user now with a service. Moreover, before a service term, the purport which is in a service term after a service term end again about the purport which is before a service term can be notified. Furthermore, it can also notify now that the term end is approaching by the judgment result of a comparator. Therefore, an user becomes unnecessary to check a service term purposely.

[0023] Since the reference information etc. is furthermore updated, it remains only by seeing this display screen, and a term etc. can be checked. That is, the precedence to be displayed from the

number of \*\* days etc. is replaced, and it is necessary to be made not to check the service term one by one.

[0024] Since multiplex [ of a service information and the control information ] is carried out to a broadcast signal and it transmits to each subscriber like the above, the receive section for decoding control information required receiving this service information and this service in a receiving side is prepared, and it can improve to the service which has bidirection from a \*\*--on the other hand service.

[0025] Furthermore, it can view and listen also to service informations other than a broadcast term, and since it ends even if an user does not perform authentication all, such as the term, the service environment can be prepared. In addition, a service broadcast shall be transmitted from a broadcasting station by multiplex broadcastings, such as VBI, or the broadcast only for service informations.

[0026] Moreover, in case a judgment of a service term memorizes a service information also with a configuration which reproduces the recorded service information and judges a service term serially from the reproduced service information, the configuration that \*\* also records the judgment result judged by the judgment means on a record means in a service information may be used for it.

[0027]

[Effect of the Invention] Since the inside of this invention and invention according to claim 1 can record a service broadcast as having explained above, it is enabled to receive [ that it is also under / broadcast term / except ] a service.

[0028] It is made to end, even if invention according to claim 2 judges automatically whether it is a service term from the term information included in a service information, and the present date and an user does not perform it purposely.

[0029] It enables it to perform [ according to invention according to claim 3 ] automatically authorization or prohibition of offer of a service information besides a judgment in addition to the effect of the above-mentioned claim.

[0030] According to invention according to claim 4, in addition to the effect of the above-mentioned claim, the service information after a term is eliminated certainly, offer which the service information mistook is prevented, and also rewriting is made possible and memory is efficiently utilized for the newest service information.

[0031] According to invention according to claim 5, in addition to the effect of the above-mentioned claim, change of reference precedence is enabled corresponding to an addition of after a deletion or a new service information.

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**DESCRIPTION OF DRAWINGS**

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[Brief Description of the Drawings]

[Drawing 1] It is the block diagram showing the gestalt of operation of the interactive service system by this invention.

[Description of Notations]

11 -- Service information selection / control means

12 -- Operation mode setting control means

21 -- Service information detection means

31 -- Service broadcast record means

32 -- Service information record means

33 -- Service reference information record means

41 -- Service information judging means

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[Translation done.]